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R20 and WRI, a Roadmap to Zero Waste and Sustainable Investing

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By James L. Stewart, Special to The Digest

A major worldwide effort is underway through the non-profit organization R20 Regions of Climate Action to assist sub-national states and jurisdictions in developing projects that promote clean energy and combat climate change. Currently, R20 has more than $1 billion of low-carbon, economic development projects in process in 20 countries. Although some are early stage, others have already been completed.

One of R20's key initiatives is to stimulate "Zero Waste" projects worldwide. These projects use new technologies to convert waste streams, such as municipal solid waste, used tires, and biosolids, into high value products such as liquid fuel, oils, electricity and other valuable outputs. To develop these projects in the "waste-to-value" space, R20 has partnered with Waste Resources International LLC.

California and the R20

And one of the leading forces behind this effort is Terry Tamminen. Terry served as Secretary of California's Environmental Protection Agency and then as Cabinet Secretary (the chief policy advisor) for Governor Arnold Schwarzenegger during the time that AB 32, the Global Warming Solutions Act, was passed, and when, by Executive Order, the state's Low Carbon Fuel Standard was put into effect.

In 2011 Tamminen and Governor Schwarzenegger founded the R20, which began as a consortium of 20 sub-national jurisdictions determined to move more aggressively than their national governments on solutions to climate change. Its initial members included the states of California, Connecticut and

Michigan, the province of British Columbia and regions and states in nations including Mexico, Brazil, Peru, France, Morocco, India and China.

R20 was conceived as a vehicle to assist sub-national and local governments around the world, not only in policy development, but also in the design and implementation of specific projects addressing climate change–projects ranging from the electrification of areas of Africa to renewable energy and energy efficiency in South America.

Immense Growth, International Finance Network

In just five years, R20 has experienced immense growth. Today it is connecting over 560 states, provinces, and other regional government members and affiliates, it has 50 technology and non-governmental partners, and importantly, has assembled the R20 Green Finance Network (“GFN”), comprised of 175 global and regional financial institutions committed to funding sustainable projects.

Representing all classes of debt and equity investors and lenders, the GFN includes sovereign wealth funds, public and private equity investors, capital markets/bank lending and public financing mechanisms. Through this network, and with the help of its financial advisor, Pegasus Capital Advisors, R20 can quickly identify those institutions that are appropriate for a specific project and help to develop the financial support for implementation.

The Role of Waste Resources International

Waste Resources International is the business development partner of the R20 in the waste optimization sector, addressing opportunities for R20 member jurisdictions in the recovery and use of carbon-based wastes, both fossil and cellulosic, as feedstocks for the production of energy, liquid fuel and sustainable products. Founded by Richard Baskin, WRI identifies available waste streams and serves as an integrator of technology, management teams and finance.

Its goal is to convert the low-carbon economic development resources of R20 member governments and contractors into bankable, market risk/ROI investment opportunities.

WRI addresses all types of waste, from single stream (used tires, for example) to the entire municipal solid waste stream (sorting systems that can make profitable use of up to 90% of mixed wastes).

Technikon, of which I serve as Vice President-Business Development, is a renewable energy-consulting firm headquartered in Sacramento, California. It has an on-going collaborative relationship with WRI in the areas of technology selection and validation, project development and administration, again specifically in the waste optimization sector.

Among its achievements, Technikon for six years operated the Renewable Energy Testing Center under contract to the U.S. Army at McClellan Air Base, managing over $30 million in Federal and State contracts related to energy, environmental or manufacturing technologies. It has assisted renewable energy companies in obtaining more than $35 million in State and Federal grants related to the result of its RETC testing program.

WRI is a relatively new initiative. However, working with R20, WRI has partnered with significant U.S and European equity and capital providers, Green Banks, and sovereign wealth funds worldwide, ensuring significant debt and equity financing for projects, which meet its criteria.

While the R20 serves as a project and finance matchmaker, WRI serves as a master developer, evaluating technologies, feedstocks, operating teams and project sites, as well as bringing its own financial resources to the projects, which currently are in process in the United States, Europe, MENA, and South America. WRI/R20 estimates that between $2-3 billion of additional new, low-carbon “waste to renewable energy” infrastructure projects will be initiated in a three-to-five-year timeframe through its collective efforts.

Together, R20 and WRI work toward the same goal: to create the proper conditions for green deal flow to happen. These conditions include appropriate “market” returns on investments, which are comparable – if not more interesting – than other existing opportunities. Investors who show an interest in an R20-endorsed project can count on political and public policy security, technology security and financial security.

The Promise of Carbon-based Wastes

According to the U.S. EPA, Americans generated approximately 254 million tons of solid waste in 2013, about 65% of which was either combusted or disposed in landfills. In all, the United States creates at least 1.5 billion tons of organic waste annually, enough to eliminate the nation’s need to import petroleum. On a life-cycle basis, renewable fuels, including renewable natural gas when produced from MSW, hold the potential to reduce GHG emissions by as much as 90% as compared to petroleum.

Given the will and the economic resources, the world could produce a meaningful percentage of its needs for liquid energy, chemicals and other products from the organic wastes that are now being landfilled.

Both R20 and WRI are dedicated to assuring that a substantial percentage of this sustainability will take place in the world's emerging economies.

Jim Stewart *is Chairman of California's BioEnergy Producers Association and Vice President – Business Development for Technikon, an energy and environmental consultancy headquartered in Sacramento, California (www.technikon.us). He was a co-founder and Vice-President of New Planet Energy, which joint ventured with INEOS BIO to construct the Indian River BioEnergy Center, the nation's first commercial biorefinery to convert cellulosic waste materials to ethanol and electricity. He may be reached at jstewart@technikon.us.*